

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	("6181376").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/22 14:29
S1	0	("200330011571").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2003/09/30 11:17
S2	2	("20030011571").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2003/09/30 15:46
S3	5	("6445818").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2003/09/30 15:58
S4	2	("20020149599").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2003/09/30 16:43
S5	77	((("382"/\$)!ccls.) and (dominant near color)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/05/28 11:39
S6	0	((("382"/\$)!ccls.) and (dominant near color)) and (extraction with region) and (of near interest)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2003/09/30 16:47
S7	3	((("382"/\$)!ccls.) and (dominant near color)) and (extraction with region)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2003/09/30 16:53
S8	504	dominant near color	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2003/09/30 16:52

S9	0	(dominant near color) and (((("382"/\$)!ccls.) and (dominant near color)) and (extraction with region) and (of near interest))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2003/09/30 16:52
S10	6	(dominant near color) and (extraction with region)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2003/09/30 16:53
S11	2	("5222154").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/05/28 09:36
S12	2	("5535314").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/05/28 09:36
S13	1	"5111533".PN.	USPAT	OR	OFF	2004/05/28 11:37
S14	1	"5053867".PN.	USPAT	OR	OFF	2004/05/28 11:37
S15	781	dominant near color	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/05/28 11:39
S16	462	(dominant near color) and @ad<="19990703"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/07/22 10:01
S17	0	((dominant near color) and @ad<="19990703") and (regin near of)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/05/28 11:41
S18	0	((dominant near color) and @ad<="19990703") and (region near of)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/05/28 11:41
S19	213	((dominant near color) and @ad<="19990703") and region	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/05/28 11:41

S20	14	((dominant near color) and @ad<="19990703") and region) and (similar near color)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/05/28 11:42
S21	19	(dominant near color) and descriptor and (region near3 interest)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2004/06/15 15:50
S22	2	("6542632").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2004/06/16 12:41
S23	108	((("382"/\$)!ccls.) and (dominant near color)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/02/18 09:45
S24	32	S23 and @ad<="19990703"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/02/18 09:49
S25	1	S24 and ROI	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/02/18 09:49
S26	241	(confidence near2 measure) .clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/07/21 17:05
S27	22	S26 and @prad <= "19990703"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/07/21 16:51
S28	1	((confidence near2 measure) and (video near2 dominant)).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/07/22 10:00

S29	0	Hyeo near2 jun near2 kim	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/07/22 10:01
S30	9	Hyeo near2 kim	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/07/22 10:01
S31	333	Hyeon near2 kim	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/07/22 10:01
S32	53	Hyeon near2 jun near2 kim	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/07/22 10:01
S33	27	S32 and @prad<="19990703"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/07/22 10:01
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S35	2	("4774565").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/22 10:58
S36	2	("4837614").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/22 10:59

S37	2	("5138699").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/22 10:59
S38	2	("5614947").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/22 10:59
S39	2	("4642678").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/22 10:59
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S41	1	S40 and @ad <= "20010412"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/07/22 11:43
S42	1	S40 and @prad <= "20010412"	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/07/22 11:44
S43	5	((missing near1 color) and (first near2 interpolated)) .clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/07/22 12:11
S44	2	("3971065").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/22 12:13

S45	2	("5323233").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/22 12:19
S46	2	("5652621").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/22 12:21
S47	2	("3971065").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2005/07/22 14:29



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41 [Non-Linear Scale-Spaces Isomorphic to the Linear Case with Applications to Scalar, Vector and Multispectral Images](#)

Luc Florack

May 2001 **International Journal of Computer Vision**, Volume 42 Issue 1-2Full text available:  [Publisher Site](#)Additional Information: [full citation](#), [abstract](#), [index terms](#)

A basic requirement of scale-space representations in general is that of scale causality, which states that local extrema in the image should not be enhanced when resolution is diminished. We consider a special class of nonlinear scale-spaces consistent with this constraint, which can be linearised by a suitable isomorphism in the grey-scale domain so as to reproduce the familiar Gaussian scale-space. We consider instances in which nonlinear representations may be the preferred choice, as well ...

Keywords: linear/nonlinear/morphological scale-space theory, scalar/vector/multispectral imagery

42 [The Joy of Sampling](#)

D. A. Forsyth, J. Haddon, S. Ioffe

January 2001 **International Journal of Computer Vision**, Volume 41 Issue 1-2Full text available:  [Publisher Site](#)Additional Information: [full citation](#), [abstract](#), [index terms](#)

A standard method for handling Bayesian models is to use Markov chain Monte Carlo methods to draw samples from the posterior. We demonstrate this method on two core problems in computer vision—structure from motion and colour constancy. These examples illustrate a samplers producing useful representations for very large problems. We demonstrate that the sampled representations are trustworthy, using consistency checks in the experimental design. The sampling solution to structure from m ...

Keywords: Markov chain Monte Carlo, colour constancy, structure from motion

43 [3D Geometry Reconstruction from Multiple Segmented Surface Descriptions Using Neuro-Fuzzy Similarity Measures](#)

Daniel Fischer, Peter Kohlhepp

December 2000 **Journal of Intelligent and Robotic Systems**, Volume 29 Issue 4Full text available:  [Publisher Site](#)Additional Information: [full citation](#), [abstract](#)

This paper presents a novel solution to the reconstruction of 3D geometry models from partial, segmented (2.5D or 3D) range views. *First*, the geometric fusion works entirely on *sparse symbolic information*, i.e. attributed surface graphs, rather than point data or

triangulated meshes. Thus, new sensor data can always be integrated with an existing partial model available for symbolic action planning. *Second*, assumptions on *automatic registration* ...

Keywords: 3D reconstruction, Neuro-Fuzzy, attributed graph, boundary representation, feature correspondence, image registration, late fusion, range image, surface similarity measure

44 Dissolve transition detection algorithm using spatio-temporal distribution of MPEG macro-block types (poster session)

Sung-Bae Jun, Kyoungro Yoon, Hee-Youn Lee

October 2000 **Proceedings of the eighth ACM international conference on Multimedia**

Full text available:  [pdf \(394.68 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Almost every shot change detection algorithm detects abrupt transition (hard cut) without difficulty, but gradual transitions such as fades, dissolves, wipes are left as hard-to-detect problems. Dissolve effect, among the various gradual transition effects, is one of the most frequently used shot transition methods with special semantic meaning such as scene transition. Information of the shot change type can also be the basis for the shot clustering algorithms. In this paper, we present a fa ...

Keywords: MPEG, dissolve, fades, macro block type distribution, shot change detection, video segmentation

45 Probabilistic Modeling and Recognition of 3-D Objects

Joachim Hornegger, Heinrich Niemann

October 2000 **International Journal of Computer Vision**, Volume 39 Issue 3

Full text available:  [Publisher Site](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

This paper introduces a uniform statistical framework for both 3-D and 2-D object recognition using intensity images as input data. The theoretical part provides a mathematical tool for stochastic modeling. The algorithmic part introduces methods for automatic model generation, localization, and recognition of objects. 2-D images are used for learning the statistical appearance of 3-D objects; both the depth information and the matching between image and model features are missing for mo ...

Keywords: adaptive random search, expectation maximization algorithm, global optimization, hidden Markov models, marginalization, mixture densities, pose estimation, statistical object recognition

46 Probabilistic Detection and Tracking of Motion Boundaries

Michael J. Black, David J. Fleet

August 2000 **International Journal of Computer Vision**, Volume 38 Issue 3

Full text available:  [Publisher Site](#) Additional Information: [full citation](#), [abstract](#), [citations](#), [index terms](#)

We propose a Bayesian framework for representing and recognizing local image motion in terms of two basic models: translational motion and motion boundaries. Motion boundaries are represented using a non-linear generative model that explicitly encodes the orientation of the boundary, the velocities on either side, the motion of the occluding edge over time, and the appearance/disappearance of pixels at the boundary. We represent the posterior probability distribution over the model parameters ...

Keywords: Bayesian methods, motion discontinuities, occlusion, optical flow, particle filtering

47 Surface light fields for 3D photography

Daniel N. Wood, Daniel I. Azuma, Ken Aldinger, Brian Curless, Tom Duchamp, David H. Salesin, Werner Stuetzle

July 2000 **Proceedings of the 27th annual conference on Computer graphics and interactive techniques**Full text available:  [pdf\(4.61 MB\)](#)Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

A surface light field is a function that assigns a color to each ray originating on a surface. Surface light fields are well suited to constructing virtual images of shiny objects under complex lighting conditions. This paper presents a framework for construction, compression, interactive rendering, and rudimentary editing of surface light fields of real objects. Generalization of vector quantization and principal component analysis are used to construct a compressed repres ...

Keywords: 3D photography, function quantization, image-based rendering, light field, lumigraph, principal function analysis, surface light fields, view-dependent level-of-detail, wavelets

48 Locating and Recognizing Text in WWW Images

Daniel Lopresti, Jangying Zhou

May 2000 **Information Retrieval**, Volume 2 Issue 2-3Full text available:  [Publisher Site](#)Additional Information: [full citation](#), [abstract](#), [citations](#), [index terms](#)

The explosive growth of the World Wide Web has resulted in a distributed database consisting of hundreds of millions of documents. While existing search engines index a page based on the text that is readily extracted from its HTML encoding, an increasing amount of the information on the Web is embedded in images. This situation presents a new and exciting challenge for the fields of document analysis and information retrieval, as WWW image text is typically rendered in color and at very low ...

Keywords: WWW image text, document analysis, information retrieval, optical character recognition

49 Statistical modeling and analysis of high-resolution Synthetic Aperture Radar images

Shyam Kuttikkad, Rama Chellappa

April 2000 **Statistics and Computing**, Volume 10 Issue 2Full text available:  [Publisher Site](#)Additional Information: [full citation](#), [abstract](#)

A Synthetic Aperture Radar (SAR) is an imaging sensor capable of capturing high-resolution aerial images under a variety of imaging conditions. SAR images find application in remote sensing and military target detection and surveillance. Since SAR images exhibit considerable variations in signal strength, even when imaging similar features or objects belonging to the same class, probabilistic descriptions are useful for modeling SAR data. This paper includes an overview of popular stat ...

Keywords: SAR clutter models, SAR image analysis, SAR image segmentation and classification, target detection

50 Diffusion of General Data on Non-Flat Manifolds via Harmonic Maps Theory: The Direction Diffusion Case

Bei Tang, Guillermo Sapiro, Vicent Caselles

February 2000 **International Journal of Computer Vision**, Volume 36 Issue 2Full text available:  [Publisher Site](#)Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

In a number of disciplines, directional data provides a fundamental source of information. A

novel framework for isotropic and anisotropic diffusion of directions is presented in this paper. The framework can be applied both to denoise directional data and to obtain multiscale representations of it. The basic idea is to apply and extend results from the theory of harmonic maps, and in particular, harmonic maps in liquid crystals. This theory deals with the regularization of vectorial d ...

Keywords: color images, directions, general non-flat manifolds, gradients, harmonic maps, isotropic and anisotropic diffusion, liquid crystals, multiscale representations, optical flow

51 An Efficient Parallel Algorithm for Computing the Gaussian Convolution of Multi-dimensional Image Data

Hoi-Man Yip, Ishfaq Ahmad, Ting-Chuen Pong

December 1999 **The Journal of Supercomputing**, Volume 14 Issue 3

Full text available:  [Publisher Site](#) Additional Information: [full citation](#), [abstract](#), [index terms](#)


In this paper, we propose a parallel convolution algorithm for estimating the partial derivatives of 2D and 3D images on distributed-memory MIMD architectures. Exploiting the separable characteristics of the Gaussian filter, the proposed algorithm consists of multiple phases such that each phase corresponds to a separated filter. Furthermore, it exploits both the task and data parallelism, and reduces communication through data redistribution. We have implemented the proposed algorithm on the ...

Keywords: Gaussian filter, image processing, parallel algorithms

52 Accelerating 3D convolution using graphics hardware (case study)

Matthias Hopf, Thomas Ertl

October 1999 **Proceedings of the conference on Visualization '99: celebrating ten years**

Full text available:  [pdf\(637.86 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

Many volume filtering operations used for image enhancement, data processing or feature detection can be written in terms of three-dimensional convolutions. It is not possible to yield interactive frame rates on today's hardware when applying such convolutions on volume data using software filter routines. As modern graphics workstations have the ability to render two-dimensional convoluted images to the frame buffer, this feature can be used to accelerate the process significantly. This way ...

Keywords: convolution, hardware acceleration, volume visualization

53 Data clustering: a review

A. K. Jain, M. N. Murty, P. J. Flynn

September 1999 **ACM Computing Surveys (CSUR)**, Volume 31 Issue 3

Full text available:  [pdf\(636.24 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#), [review](#)

Clustering is the unsupervised classification of patterns (observations, data items, or feature vectors) into groups (clusters). The clustering problem has been addressed in many contexts and by researchers in many disciplines; this reflects its broad appeal and usefulness as one of the steps in exploratory data analysis. However, clustering is a difficult problem combinatorially, and differences in assumptions and contexts in different communities has made the transfer of useful generic co ...

Keywords: cluster analysis, clustering applications, exploratory data analysis, incremental clustering, similarity indices, unsupervised learning

54 Image Sequence Analysis via Partial Differential Equations

Pierre Kornprobst, Rachid Deriche, Gilles Aubert


September 1999 **Journal of Mathematical Imaging and Vision**, Volume 11 Issue 1Full text available:  [Publisher Site](#)Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

This article deals with the problem of restoring and motion segmenting noisy image sequences with a static background. Usually, motion segmentation and image restoration are considered separately in image sequence restoration. Moreover, motion segmentation is often noise sensitive. In this article, the motion segmentation and the image restoration parts are performed in a coupled way, allowing the motion segmentation part to positively influence the restoration part and vice-versa. Thi ...

Keywords: discontinuity preserving regularization, motion segmentation, sequence image restoration, space of functions of bounded variation, variational approaches

55 Improving Depth Image Acquisition Using Polarized Light

A. M. Wallace, B. Liang, E. Trucco, J. Clark

August 1999 **International Journal of Computer Vision**, Volume 32 Issue 2Full text available:  [Publisher Site](#)Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Control of the source and analysis of the polarization properties of the reflected light in a laser rangefinder based on triangulation offer a potential solution to the problem of distinguishing the primary laser stripe from unwanted inter-reflections caused by holes and concavities on metal surfaces. In this paper, the established polarization theory of first and subsequent inter-reflections from metallic surfaces is reviewed. This provides a point of comparison for ellipsometric ...

Keywords: depth sensing, metallic reflections, polarization, triangulation, vision

56 General Object Reconstruction Based on Simplex Meshes

Hervé Delingette


August 1999 **International Journal of Computer Vision**, Volume 32 Issue 2Full text available:  [Publisher Site](#)Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

In this paper, we propose a general tridimensional reconstruction algorithm of range and volumetric images, based on deformable simplex meshes. Simplex meshes are topologically dual of triangulations and have the advantage of permitting smooth deformations in a simple and efficient manner. Our reconstruction algorithm can handle surfaces without any restriction on their shape or topology. The different tasks performed during the reconstruction include the segmentation of given objects ...

Keywords: 3D reconstruction, deformable models, image segmentation, medical imaging, range images

57 Fast computation of generalized Voronoi diagrams using graphics hardware

Kenneth E. Hoff, John Keyser, Ming Lin, Dinesh Manocha, Tim Culver

July 1999 **Proceedings of the 26th annual conference on Computer graphics and interactive techniques**Full text available:  [pdf\(3.04 MB\)](#)Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

Keywords: OpenGL, framebuffer techniques, graphics hardware, interpolation, medial axis, motion planning, polygon rasterization, proximity query, voronoi diagrams

**58** Deep compression for streaming texture intensive animations

Daniel Cohen-Or, Yair Mann, Shachar Fleishman

July 1999 **Proceedings of the 26th annual conference on Computer graphics and interactive techniques**Full text available: [pdf\(1.27 MB\)](#)Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)**Keywords:** MPEG, compression, image-based rendering, streaming, virtual environment**59** Texture shaders

Michael D. McCool, Wolfgang Heidrich

July 1999 **Proceedings of the ACM SIGGRAPH/EUROGRAPHICS workshop on Graphics hardware**Full text available: [pdf\(1.36 MB\)](#)Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)**Keywords:** BRDFs, OpenGL, hardware acceleration and interactive rendering, illumination, shading languages, shadows**60** Manual and gaze input cascaded (MAGIC) pointing

Shumin Zhai, Carlos Morimoto, Steven Ihde

May 1999 **Proceedings of the SIGCHI conference on Human factors in computing systems: the CHI is the limit**Full text available: [pdf\(1.07 MB\)](#)Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

This work explores a new direction in utilizing eye gaze for computer input. Gaze tracking has long been considered as an alternative or potentially superior pointing method for computer input. We believe that many fundamental limitations exist with traditional gaze pointing. In particular, it is unnatural to overload a perceptual channel such as vision with a motor control task. We therefore propose an alternative approach, dubbed MAGIC (Manual And Gaze Input Cascaded) pointing. With ...

Keywords: Fitts'law, computer input, computer vision, eye, eye tracking, gaze, gaze tracking, multi-modal interface, pointing

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